Company : PRTC
Service Area : Puerto Rico
Account : Introduction

#### INTRODUCTION

This depreciation rate study was prepared by the Plant In Service Division of the Cost Accounting Department of the Puerto Rico Telephone Company (PRTC) with technical assistance from Snavely King Majoros O'Connor & Lee, Inc. The study was based on actual December 31, 1995 plant and reserve balances. It develops individual account depreciation rates that yield a composite company wide depreciation rate of 8.9 percent, which translates into \$228.4 million in depreciation expense. The present depreciation rates composite to 7.1 percent and yield depreciation charges of \$182.9 million. Thus, the proposed depreciation rates generate an increase in depreciation expense on a total company basis of \$45.5 million. These rates were computed on a straight line remaining life basis and reflect the application of the equal life group (ELG) procedure to vintages beginning in 1987 for Buildings, Microwave Towers, General Purpose Computers and Digital Switching. ELG has been applied to the Analog and Digital Circuit accounts beginning in 1988. ELG is being applied to the 1990 and subsequent vintages for a majority of the outside plant accounts and applied to the 1993 and subsequent vintages for the general support assets.

This study continues PRTC's normal practice of reviewing its depreciation rates on a three-year cycle basis. One of the primary motivating forces driving this depreciation study is the inadequacy of the depreciation rate for the Digital Switching account and outside plant cable accounts, given introduction of strong facilities-based and resale local exchange competition and the changing business environment subsequent to passage of the 1996 Telecommunications Act<sup>1</sup>. Other changes being reflected in this study include PRTC's development and maintenance of vintage data beginning in 1990 for a majority of its outside plant accounts and the use of ELG for these vintages. PRTC has in many cases streamlined its depreciation study process by selecting the FCC guidelines in Dockets 94-174, 94-256, 93-215 and 95-502 as well as condensing several previously used categories into single categories for depreciation rate purposes.

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<sup>&</sup>lt;sup>1</sup>"The Federal Communications Commission (FCC) will not grant the Puerto Rico Telephone Co. (PRTC) an exemption to continue to operate as a monopoly under a new law deregulating the telecommunications industry across the nation." (Carribean Business, June 6, 1996)

<sup>&</sup>quot;The PRTC was hoping to get an exemption but that is not going to happen, said Rudy Graf, president of Centennial Cellular Corp., which has been embroiled in legal battles with the PRTC over construction of a \$200 million fiber-optic network in the San Juan metropolitan area. Centennial, whose local subsidiary is Lambda Communications Inc., is seen as PRTC's primary competitor under deregulation." (Id.)

At the end of 1995, PRTC furnished approximately 1,191,000 access lines. These access lines served 1,675,000 telephones. The Company's total plant in service amounted to \$2.579 billion of which \$1.221 billion represented buildings, support assets and central office equipment and \$1.358 billion represented outside plant.

The Company supplies the full range of local telephone services, sells and leases customer premise equipment on a detartited basis, furnishes local access and leased interexchange facilities to interstate carriers, and provides equal access.

#### B. History:

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Early in the twentieth century, most of the telephones in Puerto Rico connected the sugar plantations to the sugar refineries. Sosethenes and Hemarnd Behn, sugar brokers, began acquiring the island's small telephone exchanges, and in 1914 they were granted a franchise to consolidate the two largest companies into one, the Puerto Rico Telephone Company. It served 3,900 telephones. From this small beginning, the Behn brothers expanded their holding into a conglomerate, the International Telephone and Telegraph Corporation.

Telephone service in Puerto Rico grew slowly, hampered by the depression and a series of severe tropical storms, some of which like the San Felipe hurricane in 1928 caused severe damage to the telephone system. In 1941, there were still only 19,000 telephones, but increased military activity created a need for better communication services.

Conversion to dial telephones began as World War II ended in 1945. Other milestones included the first microwave radio system in 1952, the start of direct dialing to the mainland in 1986 and the installation of a long distance switching system in 1971.

Huge industrial growth in the postwar years placed heavy demands on telephone service. Those demands were not always met to the public's satisfaction. Although telephone service expanded (by the early 1960's there were over 130,000 telephones), the quality of service continued to be the subject of criticism.

Because of the dire need for service improvement and the requirement for expansion, and the fact neither could be accomplished by ITT without a severe rate increase, it was decided that the Commonwealth should acquire the Company. The Puerto Rico Telephone Authority, a public corporation, was formed, and on June 24, 1974 it

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consummated the purchase of the Puerto Rico Telephone Company from International Telephone and Telegraph Corporation.

Since the time of the acquisition, PRTC has grown at an almost explosive rate. Total access lines have increased from 240,000 in 1974 to 1,191,000 in 1995 for an average annual increase of over 10% since 1992. Residence main stations have increased from 128,773 in 1973 to over 836,676 in 1994. As of December 31, 1994, PRTC had 251,794 business and public access lines in service, more than the total access lines in service just twenty years before.

#### C. Future Plans:

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Despite the substantial progress achieved by PRTC in both the quantity and quality of telephone service, there is still a major need to continue to improve, modernize and expand its service. For this reason, PRTC is planning to invest \$1.388 billion in additional plant and equipment during the five years 1996 through 2000. The breakdown of this new investment will be as follows:

Central Office Equipment	\$	311,964
Station Equipment		14,202
Outside Plant		745,754
Real Estate and Buildings		105,056
Cellular		146,633
Work Equipment & Other	_	61.322
Total	\$1	,387,931

Some of the planned projects include the installation of 166,273 digital central office access lines during the five year period, of which 129,745 lines will be used to replace first generation digital lines and 36,528 will be for growth. All of the lines installed during this period will incorporate the latest digital technology and prepare the network for custom calling features and centralized enhanced service upgrades. The Company will continue to deploy remote switching units to improve the efficiency of the switching operations. The Company plans to install over 6,000 new carrier channels. Virtually all of the analog investment will have to be replaced during this period since most of the equipment is costly to maintain and inefficient with regard to meeting interconnection standards. The Company will continue its effort to improve and expand its Cellular network with the initial digitalization of the cellular network using TDMA Technology and implementation of SS7 capabilities for the provision of CLASS Services and intelligent network capabilities. Other planned projects include the expansion of the Voice Recognition System Subscriber's capacity and the upgrade of the Paging System to FLEX technology using the 900 MHZ frequency bands to improve service coverage.

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During the 1996 through 2000 time period, PRTC will continue to expand its fiber ring concept in both the interoffice and feeder routes. The SONET standards will be universally adopted where possible in order to facilitate the interconnection requirements mandated by the 1996 Telecommunications Act. PRTC will implement various services and technologies that will provide customers commercial access to a network adapted to provide Integrated Services Digital Network ("ISDN"). The estimated 1996-2000 net access line gain is expected to be 968,000 and the total telephones in service is expected to increase by 73.4%.

Unlike most mainland telephone companies, PRTC continues to be confronted with "unserved demand." This demand represents both households and in some cases businesses. There are a variety of reasons for this unserved demand. Some of these reasons include insufficient lines in high rise buildings, congested feeder routes and in some cases, the requested service is in a very rural area which is difficult to serve. At the present time (1995) the estimated unserved demand stands at about 114.9 thousand telephones. Effort is under way to reduce this unserved demand to less than 40 thousand by 2000, even with the significant growth which is expected to occur during this period.

Although the Company is engaged in system expansion, system modernization is not being ignored. During 1992 PRTC completed Phase I of Signaling System #7 (SS#7) implementation which links four of the island's largest cities. Phase II will be completed in 1996 to connect several other major island offices. Other island offices will be added thereafter. The SS#7 technology provides Custom Local Area Signaling Services (CLASS), ISDN, Private Virtual Network Service (PVN), Wide Area Centrex Service, enhanced 800 service and 800 number portability, and Automatic Alternative Billing Services. PRTC is installing a trunk fiber optic cable ring around the island using Art SONET Fiber optic technology and will continue to introduce fiber optic cables to industrial parks and concentrated urban areas. Other plans include high band width switched data and fractional T-1 service to enable the economical transmission of high speed data and the use of data for video teleconferencing, high speed facsimile and an ADSL trial project. The Company has replaced all of its Analog switches and is now 100% digitally equipped. The Company Is now replacing its earlier version of digital switches. Currently, all of its DMS-10s have been replaced, along with most of the NEAX's.

# III. Depreciation of PRTC's Plant:

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## A. Factors influencing Depreciation:

With the possible exception of telephone poles and underground conduits, very little of the plant of a modern telephone company is depreciated and retired because of physical exhaustion or wear and tear. The principal causes of telephone plant replacement relate

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to competition, service requirements, technological improvements, environmental and socio-economic factors. The purpose of this section is to identify generically the primary factors affecting the economic life of PRTC's plant. While most of these factors are common throughout the telephone industry of North America, certain factors are discrete to Puerto Rico and require particular emphasis. This is especially true now that PRTC has two major companies installing plant in order to compete for PRTC's local exchange, intra-island toil, paging, cellar and access services. The 1996 Telecommunication Act has dramatically reduced the effective economic life of a significant portion of PRTC's embedded investment. PRTC must be allowed to recover its assets at least at the same rate as its competitors, if PRTC is to remain a viable enterprise.

#### 1. Competition and service requirements:

The 1996 Telecommunications Act is expected to have a significant on PRTC. Two companies, AT&T and Lambda Communications, Inc. are actively positioning themselves to provide local exchange telephone service with Lambda expected to have the most impact. Lambda affiliated companies were awarded the PCS franchise and also own the island's largest cable television provider, Cable TV of Greater San Juan. Lambda has a fiber ring already in place and is in the process of spending at least \$100 million on an expanded fiber optic network.¹ Currently its affiliates has the infrastructure in place to reach between 700,000 and 750,000 customers on the island. Also, Lambda's affiliates have an established customer service, billing operations and field personnel in place and they have now applied to provide local service. These new alternative local service providers are not subject to the same regulatory restrictions that have been previously imposed on PRTC.²

The Telecommunications Act also specifies that to facilitate local competition, action must be taken to provide interconnect service to other LECs. If PRTC is to accomplish this interconnection efficiently, it must adapt its transmission network to the new SONET formats. This will require significant replacement of its existing facilities.

### 2. Technological Factors:

The technology used to furnish telephone service on Puerto Rico is by no means peculiar to the island. PRTC employs the same state-of-the-art technology as the major

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<sup>&</sup>lt;sup>1</sup>Some reports estimate there expenditures to be in the \$200 million range.

<sup>&</sup>lt;sup>2</sup>Attachment A to the General Section contains various articles regarding competition in Puerto Rico.

mainland telephone companies. As a result, the forces of obsolescence driving the retirement of existing plant follow much the same pattern. These forces are:

• The introduction of fiber optic transmission cables for high volume trunk service in place of copper wire pair cables, coaxial cables, and radio microwave systems.

• The introduction of remote concentrators and subscriber carrierization equipment in the distribution system.

• The introduction of an intelligent network system to provide services such as custom calling features, Private Virtual Network and ISDN.

#### 3. Environmental Factors:

Probably in no other way does PRTC differ more from mainland telephone companies than in its physical environment. Although Puerto Rico is a tropical island with no winter, it experiences severe extremes of heat, humidity and wind that are a continuous threat to PRTC's outside plant. For example, the average air temperature in Puerto Rico does not exceed 85°F, but it is not uncommon for the strong tropical sunlight to create temperatures as high as 160°F in the cable sheath and 150°F in the cable core. Similarly, average annual rainfall is 60 inches per year, but as much as 30 inches of rain can fall in parts of the island in the course of only a few days resulting in severe flooding. Trade winds of about 15 mph continually cool much of the island, but the wind has been measured at 197 mph during one of the tropical humicanes that periodically sweep across the island.

These environmental factors require extraordinary efforts to protect PRTC's outside plant. Almost one third of the Company's budget for its Outside Plant Engineering and Construction Program is devoted to rehabilitation over the next five years. Among the construction programs attributable to PRTC's tropical environment is the underground placement of all existing aerial trunk fiber optic cables to avoid future cable failures.

#### 4. Socio-economic Factors:

The principal socio-economic factor influencing the depreciation of PRTC's plant is the relatively low level of telephone penetration in Puerto Rico's residential population. At present, that penetration is only about 67.1 percent, compared with almost universal service in most areas of the mainland. The total current residential demand is only about 76.2% as compared to over 90% in the United States. The difference between the households served and the residential demand represents about 115 thousand customers.

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Moratorium

Weighted lease lives

Significantly, PRTC has discontinued the use of the Simulated Plant Records Method of life analysis in favor of the full mortality approach in those accounts where sufficient data exists.

On the following page a tabulation of the plant accounts according to the method used is presented. The remainder of this section describes, in general terms, each of these six techniques.

#### 1. Full Mortality

The Full Mortality technique was employed to study the life and survivor curve of the plant accounts for which the Company maintains actuarial, i.e., aged data. IOWA survivor curves were statistically fit to observed life tables for the available bands of data to obtain the "best" statistical fits using the least sum of squared differences.

## 2. FCC telephone ranges for life and salvage parameters

The life and salvage selection is based on the ranges established by the FCC in CC Docket 92-296 for Depreciation Simplification.

## 3. FCC cable television range for distribution facility lives

The life selected for the metallic cables is based on the authorized ranges for the adoption of Uniform Accounting System for Provision of Regulated Cable Service in the Second Report and Order FCC 95-502 released January 26, 1996. The life range established for distribution plant represented 97% of the lives used by 600 community cable companies who filed form 1220s with the FCC.

#### 4. Judgement

This approach was used for two accounts. In one account, the life of another account was adopted as being representative of this account's minimum investment. In the other account, the remaining life for each type of equipment was estimated based on judgement, and the composite remaining life was calculated by weighing the number of lines served by each type of equipment. This second account's life selection was also supported by a full mortality analysis of actual historical data.

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## 5. Moratorium

A moratorium approach is the retention of the existing depreciation rate. This approach was only used for one account. The undepreciated investment in this account is primarily what was transferred from CCPR to PRTC in 1994.

# 6. Weighted lease lives

The remaining lives for the two accounts studied using this method were calculated based on a weighted remaining lease life.

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# SERVICE LIFE ESTIMATION PROCEDURES

Account	Part 32 Account Description	Full Mortality	FCC Telephone Company Bances	FCC Cable Company Banges	Judgement	Moratorium	Weighted Lease Lives
2112	Motor Vehicles	x	x				ĺ
2114	Special Purpose Vehicles				X		<del>                                     </del>
2115	Garage Work Equipment		X				
2116	Other Work Equipment		X				
	Buildings					X	
	Microwave Towers					X	
2122	Furniture		X				<del></del>
	Office Support Equipment		X				i
	Co. Comm. Equipment		X				
2124	General Purpose Computers		X				
2212	Digital Electronic Switching	X			X		1
	Operator Systems		X				
	Radio Systems		X		X		
2232.1	Digital Circuit Equipment		X				
	Analog Circuit Equipment	X	X				
	Public Telephone Equipment		X				1
	Other Terminal Equipment				<b></b>		
	Poles		X				<u> </u>
2421	Aerial Cable		X	X			
	Underground Cable		X	X		· · · · · · · · ·	
	Buried Cable		X	X			
	Intrabuilding Network Cable		X	X	<u> </u>		
	Aerial Wire					X	<u> </u>
	Conduit Systems		X				1
	Capital Leases						X
2682	Leasehold improvements				<u> </u>		; X

Company: Service Area: PRTC Puerto Rico

# 1996 Company Proposed Parameter Report

		Firs!	P.L.			
Account		ELG	or			
Number	Account Description	Year	ADFR	ANS	FNS	Curve Shape Parameters
• • •		· ·	=====			
2112	Motor Vehicles	1993	8.0	13.0	12.0	R3.0
2114	Special Purpose Vehicles	N/A	N/A	0.0	0.0	N/A
2115	Garage Work Equipment	1993	12.0	0.0	0.0	\$3.0
2116	Other Work Equipment	1993	12.0	16.0	15.0	S2.0
2121	Buildings	1987	42.0	-28.0	-27.0	P3.0
2121.1	Microwave Towers	1987	19.0	-19.0	-20.0	R3.0
2122	Furniture	1993	11.0	0.0	0.0	\$3.0
2123.1	Office Support Equipment	1993	10.0	0.0	0.0	S1.0
2123.2	Company Communication Equipment	1993	7.0	14.0	10.0	S1.0
2124	General Purpose Computers	1987	6.0	0.0	0.0	L1.5
2212	Digital Electronic Switching	1987	13.0	2.0	1.0	L1.5
2220	Operator Systems	1993	8.0	3.0	3.0	R4.0
2231	Radio Systems	1993	7.0	-2.0	-2.0	R4.0
2232.1	Digital Circuit Equipment	1988	11.0	-3.0	-5.0	O4.0
2232.2	Analog Circuit Equipment	1988	8.0	3.0	-5.0	L2.0
2351	Public Telephone Equipment	1993	7.0	15.0	10.0	R4.0
2362	Other Terminal Equipment	1993	8.0	1.0	0.0	S1.0
2411	Poles	1990	25.0	-71.0	-75.0	R2.5
2421	Aerial Cable	1990	14.2	-33.0	-35.0	L1.5
2422	Underground Cable	1990	15.9	-10.0	-10.0	L2.0
2423	Buried Cable	1990	15.8	-11.0	-10.0	L.1.0
2426	Intrabuilding Network Cable	1990	15.2	-33.0	-30.0	L1.5
2431	Aerial Wire	N/A	N/A	-11.0	0.0	N/A
2441	Conduit Systems	1990	50.0	-10.0	-10.0	\$2.0
2681	Capital Leases	N/A	N/A	0.0	0.0	N/A
2682	Leasehold Improvements	N/A	N/A	0.0	0.0	N/A
<b>2002</b>	reasement mishiosamania	1 45 4.4	,		2.0	

Company : Service Area :

PRTC

Account

: Puerto Rico : C.O.E. General

#### A. Description

At the end of 1995, PRTC's investment in central office equipment of all types was \$747,574,232. A breakdown of the investment is as follows:

Digital Electronic Switching	\$400,321,350
Operator Systems	17,501,069
Radio Systems	98,449,326
Digital Circuit Equipment	210,971,321
Analog Circuit Equipment	20.661.166
Total C.O.E.	\$747,574,232

#### B. Forces Impacting the Economic Life of Existing Plant

In the last three years, PRTC has retired all of its Analog Switching investment and \$102.2 million from its Digital Electronic Switching account. PRTC is on an accelerated program to modernize its network and consolidate its central office maintenance functions through the installation of host remote configurations. PRTC has four major fiber rings in place connecting the majority of its switching centers. Within the next two years, construction plans project that an additional \$35.7 million in Digital Switching investment will be retired. The pace of office replacement is significantly faster than what was projected just three years ago. The Digital Switch life forecast analysis evaluated the remaining life of each switch type by number of lines served.

There are several other forces impacting the remaining life of much of the remaining investment. Much of the Radio, Operator Systems and Analog Circuit investment is "manufacturer discontinued" and is scheduled to be replaced. The microwave radio systems are based on the old analog technology, and there is a need to replace the existing systems with new digital systems which use the SONET format structure. Interconnection requirements will be one of the driving forces behind this replacement. Effort is underway to consolidate the Call Completion and Directory Assistance functions, which will require the replacement of the existing Operator Service investment.

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Company : Service Area :

PRTC

Account

Puerto Rico C.O.E. General

Competition in the local exchange, paging and cellular markets will have a significant impact on the economic life of the existing C.O.E. investment. Also, the requirements to clear the frequency spectrum for the new franchise PCS service will likely require the removal of many PRTC installations. AT&T estimates that between 40% to 50% of its U.S. microwave systems will have to be relocated.

PRTC's customer service improvement projects will install 166,273 digital central office lines between 1996 through 2000. Of these, 129,745 will be used to replace first generation digital lines and the remainder will be used for growth. The construction program plans for the total island implementation of the ISDN technology, expansion of the Toll Free (888) numbering system and the installation of an island wide Debit Card System. PRTC's C.O.E. (including Cellular) projected expenditures for the 1996 through 2000 period is expected to be \$461.6 million, with much of this investment being used to provide service improvements.

The table below summarizes the life estimation procedures for each of PRTC's C.O.E. accounts. -

Account

Life Estimation Procedure

Digital Switching

Full Mortality and Retirement

Forecast by Customer Lines

Analog and Digital Circuit

FCC Guide Line Ranges

Radio Systems

Projected Remaining Lives by

Equipment Categories

Operator Systems

FCC Guide Line Ranges

#### C. Net Salvage Procedures

The net salvage estimation procedures are explained in the individual account sections of the binder.

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Company:

PRTC Service Area: Puerto Rico

Account:

2212

Category:

Digital Switching

# **ACCOUNT PARAMETER SUMMARY**

ELG START YEAR: 1987

DESCRIPTION	Prescribed (\$)	Proposed (\$)
INVESTMENT BALANCE (\$) FORM M ADJUSTMENT STUDY % OF TOTAL DEPRECIATION PLANT	338,198,837 0 338,198,837 19.0%	400,321,350 0 400,321,350 15.5%
DEPR. RESERVE (\$) (%)	87,904,393 26.0%	115,643,084 28.9%
PLIFE/AYFR (YR) CURVE	16.0 G2.0	13.0 L1.5
WHOLE LIFE (YR.) AVG. NET SALVAGE (%) WL RATÉ (%)	13.1 3.0 7.4	11.5 2.0 8.5
COMPOSITE REM LIFE (YR.) FUTURE NET SALV. (%) COMPOSITE RL RATE (%)	9.5 3.0 7.5	6.9 1.0 <sup>-</sup> 10.2
INTERSTATE FACTOR THEORETICAL RESERVE (%) THEORETICAL RESERVE (S)	0.19774 26.7% 90.151,934	0.15943 40.2% 160,929,183

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Сотралу

: PRTC

Service Area : Puerto Rico

Account Category : 2212 : Digital

> Electronic Switching

#### NARRATIVE

## Physical Description

This account includes the original cost of stored program control digital switches and their associated equipment. Included are digital switches that use either dedicated or nondedicated circuits. This account also includes cost of remote digital electronic switches. Switchboards and related equipment which perform operator assistance are excluded from switching plant. The last two analog switches left on PRTC's network were replaced in 1993, and PRTC's switches have since then been entirely digital.

#### Investment and Reserve Statistics

Investment in this category was \$400,321,350 as of December 31, 1995, constituting 15.5 percent of total depreciable plant. The reserve balance at December 31, 1995 was \$115,643,084 or 28.9 percent of category investment.

The investment in this account as of 12/31/95 is as follows:

	investment (\$000)
Digital Electronic Switching	\$342,188
Digital - Cellular Radio	14,909
Digital Elec Class Services	20,929
Digital Elec Centrex	16,175
Digital Elec Equal Access	2,398
Digital Elec Packet Switching	767
Dig. Elec Protocali Conversion	174
Dig. Elec 911 Emergency Serv.	2,781
	\$400,321

### PROJECTION LIFE, CURVE AND SALVAGE

In the prior depreciation study, the Company proposed a 14 year projection life which was supported by a retirement forecast \$60.3 million for the 1993 through 1995 period. During 1994, CCPR investment was transferred to PRTC. The total 1993-1995

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Company : PRTC

Service Área : Puerto Rico

Account : 2212 Category : Digital

Electronic Switching

retirements equaled \$102.3 million. Actual 1993-95 (PRTC only) retirements equaled \$85.8 million. See page 7 for a comparison of the planned retirements to the actual retirements booked. In 1993 the Company proposed a 14 year projection life and the FCC subsequently requested that PRTC use a 16 year life. The comparison of the actual retirements to those used in the life forecast demonstrates that even the 1993 proposed 14 year projection life was too long. In addition, the life analysis of the total mortality history for this account indicates a 12.5 year life. The last three year band of mortality experience produces a 10 year life indication.

An analysis of the projected remaining life by type of switching office in service as of 12-31-95, weighted by the number of equipped lines in service, calculates to a 7.25 average remaining life. If the non-switching investment, such as equal access and packet switching is estimated to have a 5 year average remaining life, then the composite total account remaining life will be 6.9 years. See page 6 of this section for the life assumptions, by type of switch, and the average remaining life composite calculations. The planned dates for the NEAX and GTD switch units fall within the five year construction planning period, while the estimated remaining lives for the ATT-5ESS, DMS-100 and Siemans units currently in service as of 12-31-95 is estimated to be in the 8 to 9 year range. As a reasonableness check it was verified that the estimated remaining life for these three type of switch units is in line with the historic turn-over characteristics for PRTC's switches and the remaining lives prescribed for the non-Regional Bell Operating Companies by the FCC in its 1994 and 1995 represcription process. The following a summary the non-RBOC FCC prescribed remaining lives from Depreciation Orders 95-32 and 96-22:

95-22 Order	Digital ESS Investment as of 1-1-94	Average Remaining Life
	AT&T Communications	4.9 years
	Cincinnati Bell Telephone Co.	9.6 years
	Citizens Utilities Co. of Cal.	8.6 years
	Contel of New York	9.0 years
•	GTE Midwest - Iowa	9.5 years
	GTE Midwest - Missouri	8.4 years

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Company: PRTC Service Area: Puerto Rico

Account: 2212

Category: Digital Electric Switching

> 2,781,453 \$400,321,350

#### DIGITAL ELECTRONIC INVESTMENT ACCOUNT 2212 (12-31-95)

EQUIPMENT TYPE	FRC CODE	INVESTMENT 12/31/95
Digital Electronic Switch - Loc. Listing	900-200	\$301,503,876
Digital Electronic Switch - Loc. Listing	900-250	40,684,259
Digital Electronic - Cellular Radio -	900-204	14,908,742
Dig. Elec Class Services	900-215	20,929,299
Dig. Elec Centrex	900-203	16,174,765
Dig. Elec. Switch - Equal Access	900-201	1,936,447
Dig. Elec. Switch - Equal Access	900-251	461,458
Dig. Elec. Switch - Packet Switching	900-208	767,319
Dig. Elec. Switch - Protocall Conversion	900-308	173,732
Dig. Elec. Switch - 911 Emergency Ser.	900-212	2,781,453

ESTIMATED EQUIPED LINES REMAINING TYPE OF CENTRAL OFFICE AS OF 12-31-95 WEIGHT LIFE 9.00 ATT-5ESS 32,900 290,700 8.00 **DMS-100** 1.050.057 8,400,456 0.50 NEAX-61-E 22.950 11,475 NEAX-81-FSP 10,800 0.50 5,400 NEAX-61-K 48,392 0.50 24,196 **GTD 5EAX** 84,300 2.00 168,600 SIEMANS 210,545 8.00 1.684,360 10,585,187 1,459,344 ESTIMATED SWITCHING INVESTMENT ARL

**ESTIMATED** AVERAGE 12/31/95 REM. LIFE **INVESTMENT** WEIGHT DIGITAL ELEC. SWITCHING 7.25 2,480,863,978 \$342,188,135 OTHER 2212 EQUIPMENT \$58,133,215 5.00 290,666,075 \$400,321,350 2,771,530,053 6.92 ARL **TOTAL ACCOUNT ARL** 

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7.25 ARL

Company Service Area

PRTC Puerto Rico

Account Category

: Digital
Electronic
Switching

2212

96-22 Digital ESS Investment as of 1-1-95

GTE Hawaii 8.0 years
United Telephone - Tennessee 6.9 years
United Telephone - Virginia 8.0 years

The technological changes associated with this account are significant. This can be seen if one analyzes the changes in the cost of memory boards:

NII		
1986	256,000 bit memory	\$14.66 Per KBit
1992	24,000,000 bit memory	1.40 Per KBit
AT&I	•	
1982	1,000,000 bit memory	\$ 3.40 Per KBit
1986	2,000,000 bit memory	1.86 Per KBit
1988	4,000,000 bit memory	.93 Per KBit
1990	8,000,000 bit memory	.76 Per KBit
1992	16,000,000 bit memory	.69 Per KBlt

A 13 year projection life and an lowa L1.5 curve applied to the 12/31/95 Digital Electronic Account's age distribution results in a calculated 6.9 year average remaining life. The total mortality data band's life indication was 12.5 years (See the Worm Chart) and the forecast by equipment type corresponds to a 6.9 year average remaining life, therefore, this is believed to be appropriate for the establishment of depreciation rates for this account.

A 1 percent future net salvage is being proposed for this account base on actual historical data. This future net salvage parameter is within the basic factor salvage range of 0 percent to 5 percent as order for this account in the FCC's Third Report and Order (CC Docket 92-296).

Date: May 20, 1996

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#### PUERTO RICO TELEPHONE COMPANY

# DIGITAL SWITCH RETIREMENT COMPARISON

	1993	Data as	of 12/31/95	
Retirement	Depreciation Study Projected Retirements (\$000)	Actual PRTC Retirements (\$000)	Actual CCPR Ratirements (\$000)	Total Digital Switch Retirements (\$000)
1993 1 <b>994</b> 1995	\$0 \$38,324 <u>\$21,935</u> \$60,259	\$3,366 \$36,371 <u>\$46,102</u> \$85,839	<u>\$16.390</u> \$16,390	\$3,366 \$36,371 <u>\$62,492</u> ,\$102,229
1996 1997	\$17,480 <u>\$12,087</u> \$29,567	12/31/95 Planned NEAX <u>Retirements</u> \$18,715 <u>\$0</u> \$18,715	12/31/95 Planned 5EAX Ratirementa \$8,843 \$8,182 \$17,025	12/31/95 Planned Retirements \$27,558 \$8,182 \$35,740
1993 - 1997 Retirements	\$89,826	\$104,554	\$33,415	\$137,969

# PRTC Proposal in 1993 Study

Projection Life 14 Years
Average Remaining Life 8.1 Years

#### 1993 FCC Requested Parameters

Projection Life 16 Years Average Remaining Life 9.5 Years

# PRTC's 1993 Depreciation Proposal was based on the following:

- 1. Full Mortality Life Indications of 14 Years for the last three bands of data...
- 2. Composite Projected Life for new plant additions to:

Planned Retirement offices = 2.54 Years

All other offices = 18.0 Years

Composite Life 13.9 Years

Date: May 20, 1996

Page: 16-7

PUBLIC RICO TELEPHONE COMPANY
COMPETITIVE INFORMATION
CONFIDENTIAL
NOT FOR PUBLIC RELEASE

## Generation Arrangement Table 1-VG/ELG

Company Name: Puerto Rico Telephone Company
Area: Puerto Rico

Account Code: 221200000
Account Catagory: Digital Switching

# Generation Arrangement Development of Average Service Life and Remaining Life

lowa Curve: L1.5

Average Service Life = 13.0

Generation	1		Amount	Proportion	Realized	Remainino	Vintage	Average	Remaining
Arrangement	Vintage	Age	Surviving	Surviving	Life	LHe	Avg. Life	Life Weights	Life Weights
ELG	1995	0.50	36,824,900	1.00000	0.50	8.89	9.39	3,920,958	34,864,420
ELG	1994	1.50	37,862,920	1.00000	1.60	8.34	9.84	3,847,807	32,091,210
ELG	1993	2.50	43,300,310	0.94235	2.47	7.78	10.28	4,210,291	32,774,580
ELG	1992	3.50	28,514,280	0.88952	3.20	7 <i>2</i> 7	10,77	2,647,714	19,247,280
ELG	1991	4.50	54,071,120	0.93579	4.30	6.79	11.29	4,787,222	32,528,620
ELG	1990	5.50	32,382,750	0.88874	5.21	6.37	11.67	2,728,579	17,375,570
ELG	1989	6.50	32,105,390	0.89674	5.10	6.01	12.51	2,566,290	15,424,510
<u> FL</u> G	1988	7.50	37,459,860	0.64893	6.88	5.72	13.22	2,832,929	16,212,890
ELG	1987	8.50	34,978,730	0.72183	7.56	5.49	13.99	2,500,709	13.722.710
VG	1986	9.50	12,694,160	0.41891	8.13	6.62	10.91	1,163,882	7,705,479
VG	1985	10.50	11,536,160	0.72037	8.70	6.30	13.24	871,373	5,486,859
VG	1984	11.50	12,328,930	0.66914	9.40	6.00	13.41	919,127	5,516,371
۷G	1983	12.50	7,369,921	0.45729	9.97	5.72	12.64	583,024	3,337,302
VG	1982	13.50	4,124,298	0.20430	10.30	5.45	11.42	361,259	1,971,094
VG	1981	14.50	935,689	0.05586	10.43	5.19	10.72	87 <b>,269</b>	453,143
VG	1980	15.50	1,755,969	0.25927	10.59	4.93	11.87	147,956	729,836
VG	1979	16.50	1,212,653	0.78295	11.11	4.67	14.77	82,106	389,670
VG	1978	17.50	1,299,372	0.27290	11.64	4.42	12.84	101,165	448,924
VG	1977	18.50	1,451,907	0.16070	11.86	4.17	12.53	115,919	489,204
VĢ	1976	19.50	1,105,416	0.90565	12.39	3.93	15.94	69,329	272,217
VG	1975	20.50	994,118	0.96039	13.32	3.69	16.87	58,937	217,610
VG	1974	21.50	1,163,086	0.74807	14.18	3.47	15.77		240,455
VG	1973	22.50	1,208,325	0.58619	14.84	3.25	16.75		234,509
VG	1972	23.50	802,729	0.92333	15.60	3.04	18.41	43,611	132,676
VG	1971	24.50	792,495	0.BB55#	16.60	2.84	19,02		118,433
0	PRE-197	0	2.045,876	0.50334	0.00	0.00	0.00	110,405	292,634
Total All Vintag	ješ		400,321,350					34,941,040	242,264,100
Total All VG Vi	ntages		62,821,100					4.898,541	28,022,310
Total All ELG V	/integes		337,500,250					30,042,500	214,241,800

All Vintages VG Vintages ELG Vintages

Average Service Life = Average Remaining Life = 12.82445 11.23410 5.72054 7.13129 11.45705 6.93351

Computed Gross Additions - All Vintages = 540,166,465

Average Proportion Surviving = 0.74111

Company Name: Puerto Rico Tetaphone Company
Area: Puerto Rico
Account Code: 221200000 Account Category: Digital Switching

# Development of Equal Life Group Average Service Life and Remaining Life by Age

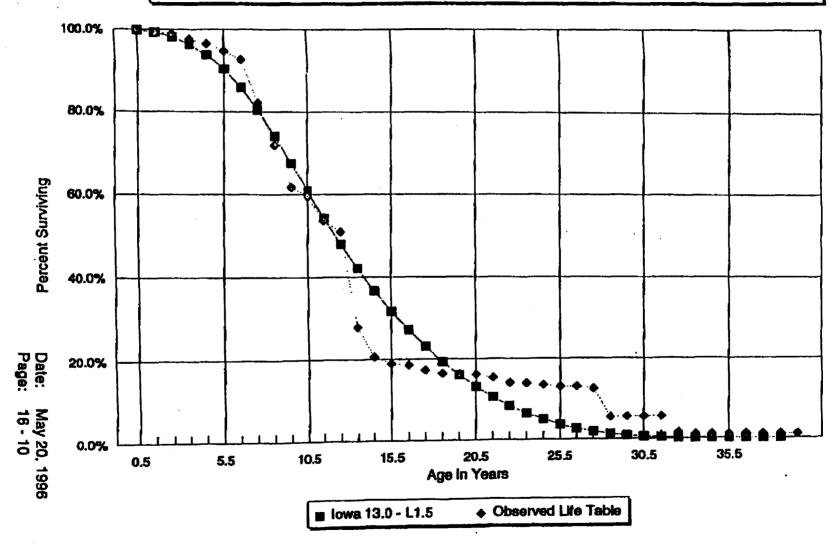
Jowa Curve: L1.5

Average Service Life = 13.0

	Amount	Amount	Retirement	Annual	Annual Accruals		Remainin	g Life
Age	in Service	Retired	Age	Lite Group	Remaining Life	Average Service Life	ELG	VG
0.00	100000.00	134.69	0.50	269.25	10902.49	9.17	9.17	13.50
0.50	99865.38	539.25	1.00	539.25	10633.24	9.39	8.89	12.52
1.50	99326.12	1082.63	2.00	541.31	10093.99	9.84	8.34	11.58
2.50	98243.50	1788.95	5.00	596.32	9552.67	10.28	7.78	10.70
3.50	96454.54	2580.68	4.00	645.17	8956.35	10.77	7.27	9.80
4.50	93873.86	3467.68	5.00	693.54	8311.18	11,29	6.79	9.15
5.50	90406.18	4510.18	6.00	751.70	7617.65	11.87	6.37	8.48
6.50	85896.00	5503.42	7.00	786.20	6865.95	12.51	6.01	7.90
7.50	80392.58	6210.33	8.00	776.29	6079.75	13.22	5.72	7.41
8.50	74182.25	6607.01	9.00	734.11	5303.48	13.99	5.49	6.90
9.50	67575.25	6723.92	10.00	672.39	4569.34	14.79	5.29	6.62
10.50	60851.33	6597.82	11.00	599.80	3896.95	15.62	5.12	6.30
11.50	54253.51	6297.89	12.00	524.82	3297.15	16.45	4.95	6.00
12.50	47955.62	5892.79	13.00	453.29	2772.33	17.30	4.80	5.72
13.50	42062.83	5440.75	14.00	388.62	2319.04	18.14	4.64	5.48
14.50	36622.09	4981.97	15.00	332.13	1930.41	18.97	4.47	5,19
15.50	31640.12	4534.91	16.00	283.43	1598.28	19.80	4,30	4.93
16.50	27105.21	4106.24	17.00	241.54	1314.85	20.61	4.11	4.67
17.50	22998.97	3698.23	18.00	205.46	1073.30	21,43	3.93	4.42
18.50	19300.74	3305.04	19.00	173.95	857.85	22.24	3.74	4.17
19.50	15995.70	2922.02	20.00	148.10	693.90	23.05	3.55	3.93
20.50	13073.69	2552.83	21.00	121.56	547.80	23.87	3.37	3.69
21.50	10520.86	2198.24	22.00	99.92		24,68	3.18	3.47
22.50	8322.62	1860.40	23.00	80.89	326.31	25.50	3.00	3.25
23.50	6462.22	1546.79	24.00	64.45	245.43		2.63	3.04
24.50	4915.44	1251.06	25.00	50.44	180.98	27.16	2.66	2.84

# **OBSERVED LIFE TABLE AND IOWA CURVE 13.00-L1.5**

Account: 2212 - Digital Electronic Switching: Band: 1943 - 1995



Company Service Area : PRTC : Puerto Rico

Account

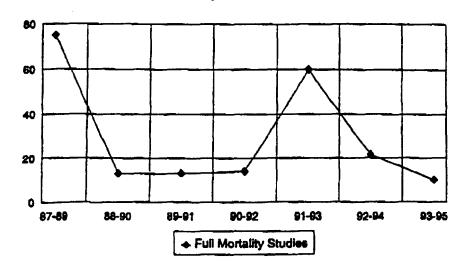
: 2212

Category

: Digital Switching

# LIFE INDICATIONS

Digital Switching



SPR Studies		Full Mo	Full Mortality Studies			
	Three-Year			ee-Year		
	Life & Curve		Life & Curve			
Band	Indication	Band	inc	<u>ication</u>		
82-84	N/A					
83-85	N/A					
84-86	N/A	•				
85-87	NA					
86-88	N/A					
87-89		87-89	75.0	R3.0		
88-90		88-90	13.0	<b>S0.0</b>		
89-91		89-91	13.0	L3.0		
90-92		90-92	14.0	L2.0		
91-93		91-93	60.0	L1.5		
92-94		92-94	21.5	<b>O3.0</b>		
93-95		93-95	10.0	S1.0		
		Full Data Band	d: 12.5	Ł1.5		

Date: May 20, 1996

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Company: PRTC
Service Area: Puerto Rico
Account: 2212
Category: Digital Electro

Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-200

	DIGITAL ESS-LOCATION L	DIING BUFZUU			
					INITIAL
					YEAR
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	PLACED
Adjuntas	Bo. Yahuecas	RSC	1,800	348,579	1987
	R. Gonaziez	DMS-100	3,700	509,219	1987
	5 0 mm Onedo	504			
Aguad <b>a</b>	Bo. Cerro Gordo	RSC	1,900	524,474	1994
	Calle Estation C.O.	DMS-100	8,300	769,941	1994
Aguadilla	Ave. Los Robies C.O.	DMS-100	14,200	4,863,787	1995
₩ Prepare	Bo, Ceiba Baja	RSC	2,350	535,616	1995
	Ramey Fleid	DMS-100	4,700	1,232,512	1995
	namey rieu	DM2-100	~,/w	1,232,312	1983
Anasco	Bo. Anasco Arriba C.O.	NEAX-81	8,400	1,996,667	1983
·	Bo. Miraflores	ASU	1,178	440,826	1987
			.,		
Arecibo	Ave. Rotario C.O.	DMS-100	20,000	5,463,475	1994
AIGOIDE	Bo. Dominguito OPM I	OPM	640	177,868	1994
	Plaza Del. Norte	OPM	640	191,254	1994
	Bo. Isoite	RSC	1,400	560,426	1994
i <b>.</b>	Bo. Sabana Hoyos RSU	RSC	1,850	306,831	1994
;	Bo. Santana	ASC	7,700	932,613	1994
	20. 00		1,00	00_,010	
Arroyo	Calle Morse C.O.	DMS-100	5,700	2,416,995	1981
	Calle Escobar C.O.	D145 400	6.400	049 844	1000
Barceloneta		DMS-100	6,400 1,280	948,811 417,389	1988
	Cruce Davila OPM I & II	OPMs	1,200	417,308	1992
Barranquitas	Calle Triana C.O.	SIEMENS	7,000	1,069,896	1995
<b>5</b> 27727.457.45		- · - · · · · · · · · · · · · · · · · ·		, , , , , , , , , , , , , , , , , , , ,	
Bayomon	Bayamon North C.O.	DMS-200			•
	•	DMS-100	77,620	31,376,214	1995
	Bayamon South Rexville	RSCS	26,700	5,692,698	1995
	Bo. Dajaos	RSU	3,850	1,424,645	1988
	Carr. 2 Merlin Motor		•	2,088	
	Ave. Irlanda Heights a.j.	RSU	1,700	463,179	1988
		•••		•	
Cabo Rojo	El Combate OPM	OPM	2,225	851,246	1995
	Bo.Boqueron RTemotes 1 & 2	RSUs	2,300	186,560	1995
•	Calle Carbonell C.O.	DMS-100	10,500	1,122,913	1995
0	De Blodes Gorde	Deu	2 000	100,721	1005
Camuy	Bo. Piedra Gorda Calle Munoz Rivera	ASU	2,000	•	1995
	Calle Munoz rivera	ASC	1,920	328,913	1995
Canovanas	Carr. 185 Campo Rico	RSC	1,850	203,486	1994
· - · · - · · · · · · · · · · · ·	Campo Rico	RSC	2,148	245,854	1994
	Carr. 3 KM. 16.3 C.O.	RSC	8,820	344,761	1994
			0,040	34.4,101	1004

Company:

PRTC Service Area: Puerto Rico

Account

2212

Category: Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-200

	DIGITAL EGG-LOCATION L	SUNG SWEAT			
					INITIAL
	LOCATION	COLUDATENT	1.0000	44.505	YEAR
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	PLACED
Carolina	Bo, Barrazas Carr.	RLMC	4,700	1,440,682	1982
	833 KW. 8.0				
	Isla Verde Aeropuerto Rem.	RSU	5,250	840,371	1988
	Isla Verde RSU I, II , & III	rsu	11,800	3,330,109	1987
	URB. Villa Flores C.O.	DMS-100	66,500	18,167,801	1984
	Bo.Canovanillas Remote	RSC	6,700	1,081,646	1995
Catano	Levitton RSC I, II, III	RSCs	10,900	2,684,563	1986
Ceiba	Calle Julian Rivera #29 C.O.	DMS-100	5,000	590,464	1994
	Roosevelt Roads C.O.	DMS-100	1,800	400,665	1994
Ciales	Bo. Fronton	RSU	900	324,377	1988
	Calle Tower C.O.	DMS-100	5,000	1,419,143	1986
Coarno	Bo. Las Flores	RSU	1,300	483,575	1987
	Bo, Los Llanos	RSU	1,150	433,101	1987
	Calle Santaella #59 C.O.	NEAX-61	7,200	2,232,523	1986
∍merio	Bo. Paloma	RSŲ	1,400	451,661	1995
	URB. Pasarell C.O.	SIEMANS	4,000	632,054	1995
Corozal	Bo. Paimarito	RSU	1,190	160,587	1995
	Bo. Palos Blancos RSU	RSU	1,180	167,905	1995
	Calle Matadero C.O.	SIEMANS	7,400	951,219	1995
Dorado	Calle Mendex Vigo C.O.	NEAX-61-FSP	10,800	3,468,188	1983
	URB Dorado Reef	Misc.		7,641	
	Carr. 693 Bo.Higuillar	Miec.		10,947	
Fajardo	Ave. General Valero C.O.	DMS-100	18,500	3,493,917	1987
Florida	Calle Arizmendiz C.O.	NEAX-61	3,000	1,055,632	1986
Guanica	Bo. Ensenada C.O.	NEAX-61	6,800	2,123,020	1985
Guayama	Calle Ashford C.O.	NEAX-61	10,850	2,928,782	1986
- Co-yaina	Sec. Puente Jobos	RSU	1,800	696,729	1986
Guayanilla	Bo. Macana	ASC	1,450	400,150	1985
-	Calle Estacion C.O.	DMS-100	4,500	2,640,532	1988
Guaynabo	Caparra 1513 C.O.	GTD 5EAX	10,830	36,463,958	1995
	Caparra 1513 Network	MISC		5,542	1981

Company: PRTC Service Area: Puerto Rico 2212

Account: Category:

Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-200

	DIGITAL ESS-LOCATION	LISTING BUEZOU			
					INITIAL
					YEAR
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	PLACED
Нашю	Bo. Candelaria	RSU	2,500	133,945	1995
	Sec. Pajuil Naranjito	RSU	3,118	96,792	1995
Hormigueros	Calle Ruiz Belvis C.O.	RSC	4,280	459,759	1995
Humacao	Calle Dr. Vidal C.O.	DMS-100	18,700	3,527,292	1995
	Paimas Del Mar	RSC	3,400	803,849	1995
isabela	Bo. Guerrero	RSC	4,000	831,240	1994
	Bo. Galateo Abajo	RSC	2,000	286,094	1994
	Calle Otero C.O.	RSC	7,700	1,166,419	1994
Jayuya	Calle Figueroa C.O.	DMS-100	3,900	941,145	1995
Juan Diaz	Bo. Pastillo	RSU	1,800	211,317	1995
	Calle Mario Brashi C.O.	SIEMANS	10,310	988,360	1995
jas	Bo. Lajas Arriba	RSC	1,500	192,660	1994
•	Carr. #116 KM. 1.5 C.O.	RSC.	5,950	711,143	1994
	La Parguera	RSC	1,450	235,986	1994
Lares	Calle Comerio C.O.	DMS-100	7,200	1,655,090	1988
Las Marias	Calle Nueva URB.FCO	RSC	2,900	558,267	1987
Loiza	Loiza Aldea	ASC	2,560	368,510	1994
Luquillo	Calle Soledad C.O.	DMS-100	7,200	1,351,545	1987
Manati	Calle San Jose C.O.	SIEMANS	12,700	2,957,715	1994
	Rio Arriba Saliente Rem	RSU	1,500	147,387	1994
Maricao	Calle Aquildra	RSC	1,800	428,877	1987
	Pueblo OPM	OPM	640	189,687	1991

Company:

PRTC Service Area: Puerto Rico

Account:

2212

Category:

Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-200

	VIGITAL ENGINEERING L	STITUS 200-200			
					INITIAL YEAR
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	PLACED
Maunabo	Calle Munoz Rivera Rem.	DMS-100	3,500	529,808	1995
Mayaguez	Bo. El. Limon	RSC	1,400	333,752	1987
. •	Bo. Quenabo	RSC	2,200	411,493	1987
	Mayaguez C.O.	DMS-100	36,000	8,638,153	1995
	Mayaguez Mall (Tops)	RLMC	640	61,562	1992
	Bo. Sabanetas Carr.342km			38,280	
	Miradero Remote	RSC	2440	477,807	1995
Moca	Bo. Capa Rocha	RSC	1,920	254,415	1995
	Bo, Naranjo	RSC	1,920	237,963	1995
•	Calle Burbona C.O.	DMS-100	5,100	503,436	1995
Morovis	Calle Buena Vista C.O.	SIEMANS	6,700	658,108	1995
., Naguabo	Bo. Pena Pobre	RSC	1,900	448,117	1994
	Calle Antonio Rios C.O.	DMS-100	5,400	404,494	1994
ajanjito	Bo. Cedro Abajo	RSU	1,350	157,086	1995
• •	Bo. Guadiana	RSU	1,940	136,577	1995
	URB, Candelaria C.O.	SIEMANS	5,800	1,433,899	1995
	Bo. Cedro Arriba (Abanico)	Misc.		11,409	
Orocovis	Bo. Bauta Abajo	RSU	1,000	387,482	1987
	Carr. #156 KM. 0.5 C.O.	NEAX-61-K	4,900	1,658,238	1984
Patillas	Bo. Guardarraya	RSC	1,480	353,760	1986
	Pueblo Remote	RSC	4,100	842,697	1986
	Estadio Municipal A. Lind Car.	Misc.	4000	569	
Penuelas	Bo. Tallaboa	RSU	1,140	358,958	1987
	Calle Los Chicos C.O.	NEAX-81-E	5,660	1,793,481	1966
	Bo. Rucio (MISC)	Misc.	***	81,145	1993

Company: PRTC
Service Area: Puerto Rico

Account:

2212

Category:

Digital Electric Switching

## DIGITAL ESS - LOCATION LISTING 900-200

	DIGITAL ESS'- EVENTION E	STREET PACKAGE			
					INITIAL
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	YEAR PLACED
Ponce	Bo. Cotto Laurel   &	RSU & RSC	4,000	100,672	1980
	Calle Power C.O.	DMS-100, Siemans	52,800	8,253,464	1995
	Sec. El Toque	RSC	5,700	984,185	1987
	Sec. Las Delicias Remote	RSC	5,000	865,211	1991
Quebradillas	Bo. San Antonio	RSU	1,250	233,018	1994
	Calle Lamela C.O.	DMS-100	5,900	736,023	1994
Rincon	Сап. #2 KM. 161.3 C.O.	DMS-100	4,800	1,266,353	1987
Rio Grande	Calle Pirnentel	DMS-100	11,500	2,491,946	1987
	Sec. Carola Bo. Paimer	RSU	4,100	899,668	1988
Sabana Grande	Bo. Machuchal, Sec.'Susa	RSU	1,600	216,937	1994
	Bo. Santana C.O.	DMS-100	6,200	656,269	1994
linas	Bo. Aguirre RSC	RSC	2,000	115,681	1994
	Bo. Lapas	RSU	2,000	481,685	1994
	Calle Palmer C.O.	DMS-100	5,500	1,105,082	1994
San German	Ba. Hoconuco	RSU	2,250		1994
	Calle Esperanza C.O.	DMS-100	9,400	2,463,527	1994
San Juan	Edif. Intendente Ramirez Ant. Fondo Seg.	RSC	3,840	2,502,070	1988
	Rio Piederas American Int'i Plaza	OPM		50,668	1991
	Rio Piederas Centro Medico	RLCM	1,280	283,726	.1991
	URB. Jardines Metropolitano Remote	RSC	3,840	2,710,396	1989
	Rio Piederas Hato Rey Milla De Oro I & II	OPM	3,840	348,871	1989
	Rio Piedras Hato Rey RDA. 35 C.O.	DMS-100	97,843	20,637,525	1982
	URB. Belisa Remoto  La Electronica	RSC	3,000	3,006,476	1992
	Rio Piedras Plaza Las Americas	OPM	2,000	664,040	1989
	Sabana Llana Villa Pades Remote	RSU	3,000	2,562,606	1992
	Santurce E. Baldorioty C.O.	DMS-100	34,000	7.852,190	1988
	Santurce West PDA. 15 C.O.	DMS-100	42,000		

Company: PRTC Service Area: Puerto Rico PRTC

Account

2212

Category:

Digital Electric Switching

## DIGITAL ESS - LOCATION LISTING 900-200

MILINICIPALITY   LOCATION   EQUIPMENT   LINES   INVESTMENT   PLACET			•				INITIAL YEAR
Bo. Juncel   Bo. Perchas Remote   Bo. Sartos   Bo. DMS-100   Bo. Sartos   Bo. Sartos   Bo. DMS-100   Bo. Sartos   Bo. Sartos   Bo. Mucarabones Carr. 861   Bo. Mucarabones Carr. 861   Bo. Mucarabones Carr. 861   Bo. Mucarabones Carr. 861   Bo. MiSC   Bo. Mucarabones Carr. 861   Bo. MiSC   Bo. Med. 321   1984    Toa Baja   Bo. Candelaria Remote   RSU   Bo. Macarabones Carr. 862   Bo. Ingerilo Remote   RSC   Bo. Ingerilo Remote   RSC   Bo. Capea   Bo. Capea   Bo. DMS-100   Bo.	MUNI	CIPALITY	LOCATION	EQUIPMENT	LINES	INVESTMENT	
Bo. Perchas Remote	San Seba	estian Bo	o. Eneas	MISC		2,221	1994
Bo, Perchas Remote		Bo	o, Juncal	MISC		2.221	1994
Calle M.J. Cabrera C.O.   DMS-100   9,500   851,226   1994		Вс	, Perchas Remote		1,600		1994
Santa Isabel   Calle Baldorioty C.O.   DMS-100   5,800   254,593   1994				MISC	_	2,159	1994
Toa Alta		Ca	ille M.J. Cabrera C,O.	DMS-100	9,500	851,226	1994
Bo. Mucarabones Carr. 861   MISC   486,258   1984   1984   1984   1984   1984   1984   1984   1984   1985   1986	Santa Isa	<b>bei</b> Ca	ille Baldorioty C.O.	DMS-100	5,600	254,593	1994
Carr. #185 C.O.   NEAX-61-K   5,400   1,694,321   1984	Toa Alta			RSU	2,500	675,946	1988
Toa Baja				***************************************		466,258	
Bo. Ingenio Remote Levittown C.O.   DMS-100   25,000   6,128,550   1982   1982   1982   1982   1982   1982   1983   1984   1983   1984   1985   198		Ca	лт. #165 C.O.	NEAX-61-K	5,400	1,694,321	1984
Levittown C.O.   DMS-100   25,000   6,128,550   1988	Toa Baja						1988
Bo. Carraizo Remote	_				-		1982
Ciudad Universitaria c.o DMS-100		Le	vittown C.O.	DMS-100	25,000	6,128,550	1988
Ciudad Universitaria c.o DMS-100	📉 ujillo Alto	Во					
Sec. La Gloria Remote   RSU   7600   1,110,649   1996		50		·- <del>-</del>			
Utuado         Bo. Caguana Remote Bo. Mameyes Remote RSU RSU 750 87,400 1995 Calle F. Garcia C.O.         RSU 750 87,400 1995 87,400						-, -,	
Bo. Marneyes Remote   RSU   750   87,400   1995   Calle F. Garcia C.O.   SIEMANS   6280   305,218   1995		Se	c. La Gioria Remote	RSU	7600	1,110,649	1995
Vega Alta.       Bo. Sabana Sec. Cerro Gordo Calle Teodoro Ramirez RSU 3100 628,362 1990 Carr. 2 RemotoVega Alta I & II DMS-100 10000 1,426,083 1991         Vega Baja       Bo. Rio Arriba Remote Urb. Caribe C.O.       RSU DMS-100 1300 139,170 1994 1994 1994 1994 1995         Villalba       Carr. 149 KM. 5.7 C.O.       SIEMANS 1,630 467,577 1986 1995 1995 1995 1995 1995 1995 1995 199	Utuado						
Vega Alta         Bo. Sabana Sec. Cerro Gordo Calle Teodoro Ramirez Carr. 2 RemotoVega Alta I & II         RSU DMS-100         2000 3100 10000         473,504 628,362 1990 10000         1990 1,426,083 1991           Vega Baja         Bo. Rio Arriba Remote Urb. Caribe C.O.         RSU DMS-100         1300 15430         139,170 3,014,608 1994         1994 1994           Villalba         Carr. 149 KM. 5.7 C.O.         SIEMANS         4,500 4,500         189,483 1995         1995 1986 2,692,509 1982 1,128           Yabucoa         Bo. Aguscate Remote Calle Munoz Rivera C.O. Sec. Jacanas Bo. Limones Re RSU         1,630 1,630 1,630 1,630 2,692,509 1,982 1,128 365,396 1,989         467,577 1986 2,692,509 1,989           Yauco         Carr. Pacheco Sur. C.O. Miscellaneous         DMS-100 12,183 1,061,938 1,994         1,061,938 1,994							
Calle Teodoro Ramirez       RSU       3100       628,362       1990         Carr. 2 RemotoVega Alta I & II       DMS-100       10000       1,426,083       1991         Vega Baja       Bo. Rio Arriba Remote       RSU       1300       139,170       1994         Urb. Caribe C.O.       DMS-100       15430       3,014,608       1994         Villalba       Carr. 149 KM. 5.7 C.O.       SIEMANS       4,500       189,483       1995         Yabucoa       Bo. Aguacate Remote       RSU       1,630       467,577       1986         Calle Munoz Rivera C.O.       NEAX-61       7,800       2,692,509       1982         Sec. Jacanas Bo. Limones Re       RSU       1,128       365,396       1989         Yauco       Carr. Pacheco Sur. C.O.       DMS-100       12,183       1,061,938       1994         Miscellaneous       122,713		Ca	e F. Garcia C.O.	SIEMANS	6280	305,218	1995
Carr. 2 Remoto Vega Alta I & II DMS-100 10000 1,426,083 1991  Vega Baja Bo. Rio Arriba Remote RSU 1300 139,170 1994  Urb. Caribe C.O. DMS-100 15430 3,014,608 1994  Villalba Carr. 149 KM. 5.7 C.O. SIEMANS 4,500 189,483 1995  Yabucoa Bo. Aguscate Remote RSU 1,630 467,577 1986  Calle Munoz Rivera C.O. NEAX-61 7,800 2,692,509 1982  Sec. Jacanas Bo. Limones Re RSU 1,128 365,396 1989  Yauco Carr. Pacheco Sur. C.O. DMS-100 12,183 1,061,938 1994  Miscellaneous 122,713	Vega Alta			RSU			1990
Vega Baja         Bo. Rio Arriba Remote Urb. Caribe C.O.         RSU DMS-100         1300 139,170 1994           Villalba         Carr. 149 KM. 5.7 C.O.         SIEMANS         4,500 189,483 1995           Yabucoa         Bo. Aguacate Remote RSU 1,630 467,577 1986 Calle Munoz Rivera C.O. NEAX-61 7,800 2,692,509 1982 Sec. Jacanaa Bo. Limones Re RSU 1,128 365,396 1989         7,800 2,692,509 1982 1,128 365,396 1989           Yauco         Carr. Pacheco Sur. C.O. DMS-100 12,183 1,061,938 1994           Miscellaneous         122,713	•		···	ASU			1990
Urb. Caribe C.O.       DMS-100       15430       3,014,608       1994         Villalba       Carr. 149 KM. 5.7 C.O.       SIEMANS       4,500       189,483       1995         Yabucoa       Bo. Aguacate Remote       RSU       1,630       467,577       1986         Calle Munoz Rivera C.O.       NEAX-61       7,800       2,692,509       1982         Sec. Jacanaa Bo. Limones Re       RSU       1,128       365,396       1989         Yauco       Carr. Pacheco Sur. C.O.       DMS-100       12,183       1,061,938       1994         Miscellaneous       122,713		Ca	rr. 2 RemotoVega Alta I & II	DMS-100	10000	1,426,083	1991
Villalba         Carr. 149 KM. 5.7 C.O.         SIEMANS         4,500         189,483         1995           Yabucoa         Bo. Aguscate Remote RSU         1,630         467,577         1986           Calle Munoz Rivera C.O. Sec. Jacanas Bo. Limones Re RSU         7,800         2,692,509         1982           Yauco         Carr. Pacheco Sur. C.O. DMS-100         12,183         1,061,938         1994           Miscellaneous         122,713	Vega Baja			RSU		•	
Yabucoa         Bo. Aguscate Remote         RSU         1,630         467,577         1986           Calle Munoz Rivera C.O.         NEAX-61         7,800         2,692,509         1982           Sec. Jacanas Bo. Limones Re         RSU         1,128         365,396         1989           Yauco         Carr. Pacheco Sur. C.O.         DMS-100         12,183         1,061,938         1994           Miscellaneous         122,713	• •	Urt	o. Caribe C.O.	DMS-100	15430	3,014,608	1994
Calle Munoz Rivera C.O. NEAX-61 7,800 2,692,509 1982 Sec. Jacanas Bo. Limones Re RSU 1,128 365,396 1989  Yauco Carr. Pacheco Sur. C.O. DMS-100 12,183 1,061,938 1994  Miscellaneous 122,713	Villalba	Ca	rr. 149 KM. 5.7 C.O.	SIEMANS	4,500	189,483	1995
Sec. Jacanas Bo. Limones Re RSU 1,128 365,396 1989 Yauco Carr. Pacheco Sur. C.O. DMS-100 12,183 1,061,938 1994 Miscellaneous 122,713	Yabucoa			RSU		,	1986
Yauco Carr. Pacheco Sur. C.O. DMS-100 12,183 1,061,938 1994 Miscellaneous 122,713		Cal	le Munoz Rivera C.O.	NEAX-61			
Miscellaneous 122,713		Sec	; Jacanas Bo. Limones Re	RSU	1,128	365,396	1989
	Yauco	Cai	т. Pacheco Sur. C.O.	DMS-100	12,183	1,061,938	1994
Subtotal FRC 2102100-900-200 301,503,876		Mis	cellaneous			122,713	
		•	Subtotal F	RC 2102100-900-200	)	301,503,876	

Company:

PRTC Service Area: Puerto Rico

Account:

2212

Category:

Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-250

	•				INITIAL
MUNICIPALITY	LOCATION	EQUIPMENT	LINES	INVESTMENT	YEAR PLACED
				MAY A DESIGNATION OF THE PARTY	
AGUAS BUENAS	Calle Munoz Rivera C.O.	SIEMANS	4,785	662,989	1995
AIBONITO	Calle Geronimo Martinez C.O	SIEMAN\$	4603	424,128	1995
	Carr. PR. Remote A	RCU	856	13,227	1995
	Carr. PR. Remote B	RCU	638	17,121	1995
	Parcella Rual Pastos Rem. C	RCU	884	13,899	1995
	Bo. Alganobo Rem. C1	SLC	96	11,922	1995
	Bo. Cuyon Carr. Rem. C2	SLC	96	9,281	1995
	Carr. La Plata Rem. D	RCU	427	8,941	1995
CAGUAS	EDIF. Padial C.O.	SIEMANS		3,088,990	1995
		GTD 5EAX	46,344	8,841,948	1983
	San Antonio Rem. A	RCU	1,007	104,022	1983
	Canas Rem. B	RCU	2.291	474,829	1983
	Navarro Rem. C	RCU	1,269	115,412	1983
	Bo. Tomas De Casyro Rem. E		425	39,086	1983
	Parcelas Borinquen Rem. F	RCU	859	92,676	1984
	San Salavador Rem, G	RCU	538	56,497	1984
	Guavante Rem. H	RCU	743	91,196	1983
	Beatriz KM 41.2 Rem. J	RCU	1,150	152,841	1983
	Beatriz KM 46.7 Rem. K	RCU	1,165	126,051	1983
	BO. Canabon Cito Rem. N	RCU	741	82,696	1983
•	BO. Canabon Cito Rem. M	RCU	3,040	450,689	1983
	BO, Canabon Rem. O	RCU	667	91,352	1985
	Parcelas Las Carolinas Rem. P		920	115,680	1983
	La. Barra, La. Changa Rem, R		1,942	276,133	1983
	Parceias Rio Canas Rem. Q	RCU	920	124,916	1983
CAYEY	Calle Luis M. Rivera C.O.	SIEMANS	11,376	1,614,420	1995
	Honduras Rem. A	RCU	1,464	214,124	1995
		RCU	2,312	325,032	1995
	Bo. Beatriz Rem. C	RCU	1,280	177,521	1995
	Bo. Vega Rem. D	RCU	944	133,863	1995
	Pasto Veljo Rem. E	RCU	324	<b>54,750</b>	1995
	Sumidero Rem. F	RCU	548	69,479	1995
		RCU	564	83,887	1995
		RCU	101	1,417	1995
		RCU	332	35,926	1995
	<del></del>	RCU	404	57,261	1995
(	Carretera 1 Km 58.0	Misc.		15,331	1995

Company:

PRTC Service Area: Puerto Rico

Account

2212

Category:

Digital Electric Switching

# DIGITAL ESS - LOCATION LISTING 900-250

				٠	INITIAL
	n. 1 OCATION	FOLUDATEAR	1 11 150	11 11 15 cm 15 15	YEAR
MUNICIPALIT	Y LOCATION	EQUIPMENT	LINES	INVESTMENT	PLACED
CIDRA	Calle Luis M. Rivera C.O.	SIEMANS	5,632	67 <b>9,730</b>	1995
	Bo. Ceiba Rem. A	RSU	903	14,225	1995
	Bo, Baymone Rem. B	RSU	1,233	19,543	1995
	Bo. Rincon Rem. C	RSU	986	17,024	1995
	Bo. Rabanal Rem. D	RSU	1,140	18,747	1995
CULEBRA	Calle William Front Remote	RCU	1,045	47,286	1995
GUAYNABO	URB, Luis M. Rivera C.O.	GTD SEAX	21,272	8,181,871	1986
	Bo, Santa Rosa Rem. 1	RMT	1,196	586,348	1986
	Bo. Guaraguao Rem. 2	RMT	872	348,430	1987
	Guaraguaguao Rem. 3	RMT	764	626,110	1986
	Marney Rem. 4	RMT	680	244,217	1986
	Hato Nuevo Rem. 5	RMT	808	334,933	1987
	Rio Rem. 6	RMT	1,000	328,010	1987
	Parcelas 41B Rem. 7	RMT	2,104	731,570	1987
<b>3</b>	J. Martinez Los Filtros Rem 9	RMT	1,564	472,895	1987
	QDA. Arebas Rem . 10	RMT	3,564	905,122	1986
	La Alameda Rio Piedras Rem. 1	RMT	5,712	2,220,625	1986
GURABO	Calle Angel C. Moralas C. O.	SIEMANS	5,312	1,470,385	1995
	Bo. Jaguas Rem. A	RCU	492	6,914	
	Bo. Celada Rem. B	RCU	402	5,526	1995
	Bo. Masas Rem. C	RCU	690	10,008	1995
	Hato Nuevo Rem. E	RCU .	607		1995
	Bo. Marney Rem. F	ACU	731	10,600	1995
JAYUYA	Fac. Cerro Punta	Misc.		11,594	
JUNCOS	Calle Dr. Barreras C.O.	SIEMANS	7,112		1995
	El Mango Rem. B	RCU	872		1995
	Ceiba Norte Rem. C	RCU	778		1995
	Bo. Valenciano Rem. D	RCU	480	•	1995
	Bo. Los Lirios Rem. E	RCU	580		1995
	Los Chinos Rem. F	RCU	728	•	1995
	La Placita Rem. H	RCU	360	58,304	1095
LAS PIEDRAS	Calle Jose Celso Barebosa C.O	GTD SEAX	8,400	1,446,349	1990
SAN LORENZO	Calle Munoz Rivera C.Q.	SIEMANS	11,548	1,168,201	1995
VIEQUES	Calle Baldorioty Comercial	SIEMANS	3,620	1,190,575	1995
	Bo. La Esperanza Concentrator		470		1995
	•	<del>_</del>	., •	·	
	Miscellaneous		_	23,412	•
	Subtotal FR	IC 2102100-900-25	U	40,684,259	

Company: Service Area:

PHTC Puerto Rico 2212

Account Category:

Digital Switching

#### **AVERAGE NET SALVAGE**

PLANT	GROSS SALVAGE		COST OF R	NET Salvage	
RETIRED	PERCENT	WEIGHT	PERCENT	WEIGHT	PERCENT
	*	(\$)	%	(\$)	%
A	B	C+(A*B)/100	D	E=(A*D)/100	F=(B-D)

PAST 1/ 139,265,450

5.7% 2/

FUTURE 400,321,350 539,586,800

1.0% 2.0%

<sup>1/</sup> Difference from Computed Gross Additions - All Vintages and Total All V on Generation Arrangement. 2/ Table A.